

# Exercises

**[ A ] : Choose The Correct Answer : -**

1	The ratio between the perimeter of the square and its side length equal ..... A) 1 : 3                      B) 3 : 1                      C) 1 : 4                      D) 4 : 1	D
2	The ratio between the perimeter of the rhombus and its side length is ..... A) 1 : 3                      B) 3 : 1                      C) 1 : 4                      D) 4 : 1	D
3	The ratio between the perimeter of the equilateral triangle and its side length is ..... A) 1 : 3                      B) 3 : 1                      C) 1 : 4                      D) 4 : 1	B
4	The ratio between the side length of the equilateral triangle and its perimeter is ..... A) 1 : 3                      B) 3 : 1                      C) 1 : 4                      D) 4 : 1	A
5	The ratio between the side length of the rhombus and its perimeter is ..... A) 1 : 3                      B) 3 : 1                      C) 1 : 4                      D) 4 : 1	C
6	The ratio between the side length of the square and its perimeter is ..... A) 1 : 3                      B) 3 : 1                      C) 1 : 4                      D) 4 : 1	C
7	The ratio between the diameter of the circle and its circumference is ..... A) 1 : $\pi$ B) 1 : $2\pi$ C) $\pi$ : 1                      D) $2\pi$ : 1	A
8	The ratio between the radius of the circle and its circumference is ..... A) 1 : $\pi$ B) 1 : $2\pi$ C) $\pi$ : 1                      D) $2\pi$ : 1	B



9	The ratio between the circumference of the circle and its radius A) $1 : \pi$ B) $1 : 2\pi$ C) $\pi : 1$ D) $2\pi : 1$	D
10	The ratio between the circumference of the circle and its diameter A) $1 : \pi$ B) $1 : 2\pi$ C) $\pi : 1$ D) $2\pi : 1$	C
11	The side length of a square = 3 cm. , then the ratio between its side length and its perimeter equals A) $1 : 3$ B) $3 : 1$ C) $1 : 4$ D) $4 : 1$	C
12	The ratio among $\frac{1}{3} : \frac{1}{4} =$ A) $1 : 2$ B) $3 : 4$ C) $4 : 3$ D) $1 : 4$	C
13	The ratio between 300 gm. and $1\frac{1}{3}$ kg = A) $1 : 2$ B) $1 : 5$ C) $1 : 10$ D) $1 : 30$	B
14	The ratio between 18 hours and one day = .....(in the simplest form ) A) $4 : 3$ B) $3 : 4$ C) $3 : 2$ D) $2 : 3$	B
15	The ratio between 12 kirats and 2 feddans = A) $1 : 2$ B) $1 : 4$ C) $2 : 3$ D) $4 : 1$	B
16	125 piasters : 5 pounds = ..... (in the simplest form ) A) $4 : 1$ B) $1 : 4$ C) $25 : 1$ D) $1 : 25$	B
17	A machine irrigates 15 feddans in 10 hours , then its rate = .....feddans/hour. A) 15      B) 10      C) 1.5      D) 1	C
18	If Hazem drinks 21 glasses of milk weekly , then the rate of what he drinks daily is ..... glasses A) 3      B) 7      C) 14      D) 20	A



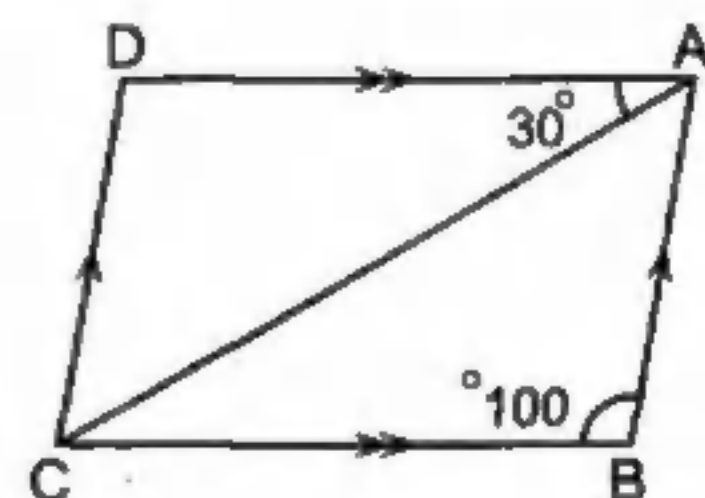
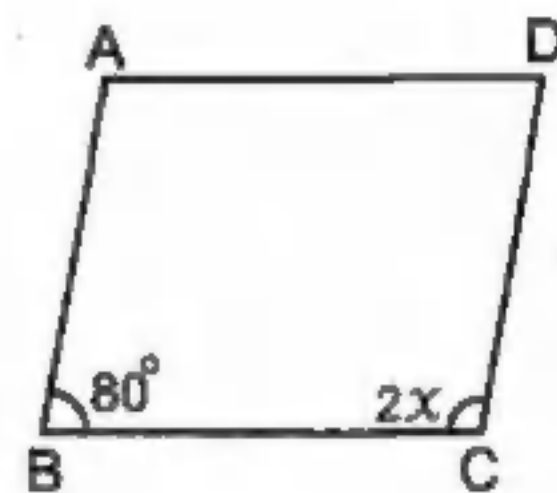
19	An agricultural machine ploughs 14 feddans in 3.5 hours , then the rate of performance of the machine in Feddan per hour is .....	C
	A) 0.5                      B) 8                      C) 4                      D) 49	
20	If $A : B = 2 : 3$ , $B : C = 3 : 5$ , then $A : C =$ .....	B
	A) 2 : 3                      B) 2 : 5                      C) 3 : 5                      D) 3 : 2	
21	If the ratio among the measurements of the angles of a triangle is 1 : 2 : 3 , then the measure for the smallest angle is .....	C
	A) 10                      B) 45                      C) 30                      D) 60	
22	If $a : b = 50\%$ , $b : c = 2 : 3$ , then $a : c =$ .....	C
	A) 1 : 2                      B) 2 : 3                      C) 1 : 3                      D) 3 : 1	
23	From the properties of the proportion , then the product of the extremes = the product of the .....	B
	A) Ratio                      B) Means                      C) Area                      D) Percentage	
24	If $\frac{3}{4} = \frac{X}{20}$ , then $X =$ .....	C
	A) 30                      B) 6                      C) 15                      D) 60	
25	If $\frac{2}{5} = \frac{X}{20}$ , then $X - 2 =$ .....	C
	A) 8                      B) 4                      C) 6                      D) 2	
26	If $\frac{8}{X} = 0.5$ , then $X =$ .....	C
	A) 4                      B) 8                      C) 16                      D) 40	
27	If $\frac{A}{4} = 25\%$ , then $A =$ .....	C
	A) 10                      B) 20                      C) 1                      D) 100	
28	If $\frac{X+12}{6} = 4$ , then $X =$ .....	B
	A) 24                      B) 12                      C) 6                      D) 8	



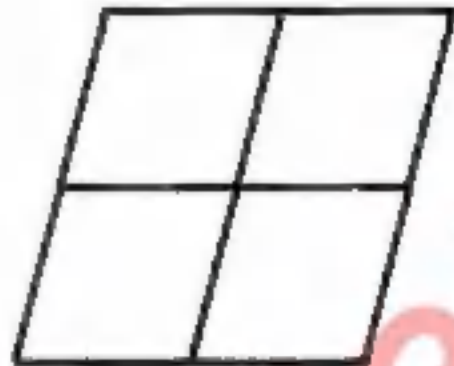
29	If the numbers 4 , X , 12 and 18 are in proportional , then the value of X = ..... A) 2                      B) 3                      C) 6                      D) 9	C
30	The percentage is a ratio which second term is ..... A) 10                      B) 100                      C) 1000                      D) 10 000	B
31	$1\frac{3}{4} = \dots\dots\dots\%$ A) 25                      B) 75                      C) 125                      D) 175	D
32	20 % of 200 pounds = .....pounds A) 10                      B) 20                      C) 30                      D) 40	D
33	$62.5\% = \frac{\dots\dots\dots}{8}$ A) 1                      B) 3                      C) 5                      D) 7	C
34	$32\% + 27\% + \dots\dots\dots\% = 100\%$ A) 32                      B) 27                      C) 41                      D) 100	C
35	A class has 40 pupils, if 32 of them are attendant , then the percentage of absentees = ..... % A) 8                      B) 32                      C) 40                      D) 20	D
36	If 45 % of X = 90 , then X = ..... A) 200                      B) 100                      C) 300                      D) 20	A
37	If a length in drawing is 2 cm. and its real length is 20 m. , then the drawing scale equals ..... A) 1 : 10                      B) 1 : 100                      C) 1 : 1000                      D) 1 : 10 000	C
38	The length of an insect in a picture is 4 cm. and its real length is 2 millimeters , then the drawing scale is..... A) 20 : 1                      B) 2 : 1                      C) 1 : 2                      D) 1 : 20	A



39	The form of the equal ratios $\frac{2}{3} = \frac{4}{6} = \frac{8}{12}$ is called..... A) Ratio      B) Rate      C) Percentage      D) Proportion	D
40	If the length of Suez Canal on a map of drawing scale 1 : 1 100 000 is 15 cm. , then its real length in km. equals ..... A) 155      B) 165      C) 170      D) 185	B
41	The sum of measures of any two consecutive angles in the parallelogram ..... A) 360      B) 180      C) 90      D) 60	B
42	The two diagonals are equal in length and perpendicular in ..... A) square      B) triangle      C) rhombus      D) rectangle	A
43	The diagonals are perpendicular and not equal in length in ..... A) square      B) triangle      C) rhombus      D) rectangle	C
44	The diagonals are equal and not perpendicular in length in ..... A) square      B) triangle      C) rhombus      D) rectangle	D
45	<b>In the opposite figure :</b> ABCD is a parallelogram in which $m(\angle B) = 80^\circ$ and $m(\angle C) = 2x$ , then the value of $x$ in degrees = .....  A) 100      B) 80      C) 50      D) 40	C
46	<b>In the opposite figure :</b> ABCD is a parallelogram , $m(\angle B) = 100^\circ$ and $m(\angle CAD) = 30^\circ$ , then $m(\angle BAC) = \dots\dots\dots^\circ$  A) 50      B) 130      C) 70      D) 60	A





47	<p><b>In the opposite figure :</b></p> <p>The number of parallelograms which can be obtained is .....</p>  <p>A) 4                      B) 5                      C) 7                      D) 9</p>	<b>D</b>
48	<p>If one of the angles of the parallelogram is right and two of its adjacent sides are equal in length , then it is called .....</p> <p>A) square              B) triangle              C) rhombus              D) rectangle</p>	<b>A</b>
49	<p>If two adjacent sides in a parallelogram are equal in length and its diagonals are perpendicular ,then it is called .....</p> <p>A) square              B) triangle              C) rhombus              D) rectangle</p>	<b>A</b>
50	<p>The centimetre cube is a unit for measuring the .....</p> <p>A) Length              B) Volume              C) Area              D) Perimeter</p>	<b>B</b>
51	<p>The area of the base of a cuboid is 6 cm, and its height is 7 cm. , then its volume = ..... <math>\text{cm}^3</math></p> <p>A) 67                      B) 42                      C) 100                      D) 76</p>	<b>B</b>
52	<p>The cuboid with equal dimensions is called .....</p> <p>A) Circle              B) Cube              C) Cone              D) Cylinder</p>	<b>B</b>
53	<p>The volume of cuboid whose dimensions are 2 cm. 4 cm. and 6 cm.</p> <p>A) 48 <math>\text{cm}^2</math>              B) 48 <math>\text{cm}^3</math>              C) 48 cm              D) 48 <math>\text{cm}^4</math></p>	<b>B</b>
54	<p>The edge length of a cube is 5 cm. , then its volume <math>\text{cm}^3</math></p> <p>A) 25                      B) 125                      C) 5                      D) 250</p>	<b>B</b>
55	<p>The edge length of a cube is 0.2 dm. , then its volume ..... <math>\text{cm}^3</math></p> <p>A) 2                      B) 8                      C) 20                      D) 200</p>	<b>B</b>



56	The edge length of a cube = 9 cm. , then the sum of all its edge lengths is ..... A) 90                      B) 900                      C) 108                      D) 1080	C
57	The volume of a cuboid with a squared base of side length 6 cm. and its height is 10 cm. equals ..... $\text{cm}^3$ A) 60                      B) 120                      C) 360                      D) 600	C
58	If the volume of a cuboid is $24 \text{ cm}^3$ and the area of its base is $8 \text{ cm}^2$ , then its height = ..... cm A) 3                      B) 6                      C) 192                      D) 0.3	A
59	The volume of a cuboid equals $400 \text{ cm}^3$ and its base is with length = 8 cm. and width = 5 cm., then its height equals ..... cm A) 50                      B) 10                      C) 80                      D) 20	B
60	The base perimeter of a cube is 36 cm, then its volume = ..... $\text{cm}^3$ A) 9                      B) 81                      C) 729                      D) 108	C
61	If the sum of the edge lengths of a cube = 144 cm. , then its volume equals ..... A) 144 cm                      B) $144 \text{ cm}^2$ C) 1728 cm                      D) $1728 \text{ cm}^3$	D
62	If the volume of a cube = $0.125 \text{ cm}^3$ , then its edge length = ..... cm. A) 25                      B) 2.5                      C) 5                      D) 0.5	D
63	If the volume of the cube equals $125 \text{ dm}^3$ , then the length of its edge = ..... dm A) 5                      B) 6                      C) 7                      D) 8	A
64	The volume of the cube is $125 \text{ cm}^3$ , then its base area = ..... A) $25 \text{ cm}^2$ B) 25 cm                      C) $5 \text{ cm}^2$ D) 5 cm	A
65	4.63 litres = ..... $\text{cm}^3$ A) 463                      B) 4630                      C) 46 300                      D) 46.3	B



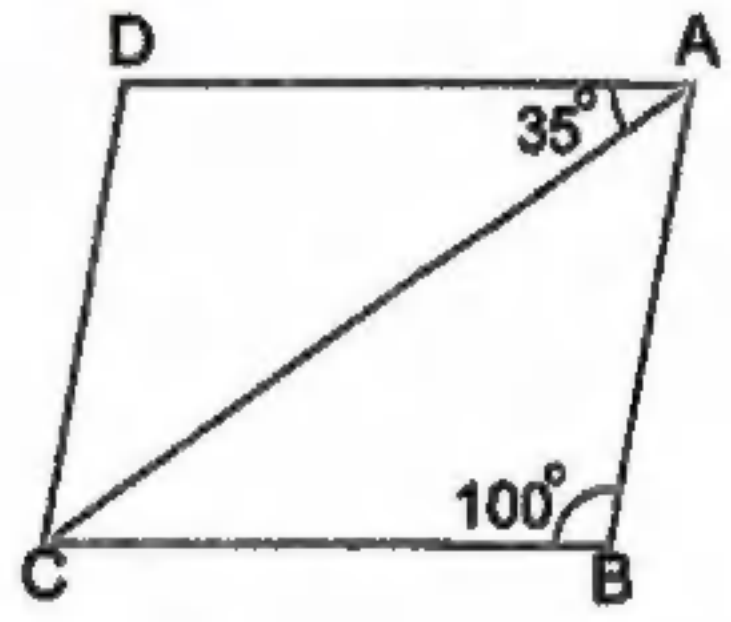
66	$12 \text{ dm}^3 = \dots\dots\dots \text{cm}^3$ A) 12                      B) 120                      C) 1200                      D) 12000	D
67	$\frac{3}{4} \text{ litre} = \dots\dots\dots$ A) 75 ml                      B) 750 $\text{cm}^3$ C) 75 $\text{dm}^3$ D) 0.075 $\text{m}^3$	B
68	$2.5 \text{ cm}^3 = \dots\dots\dots \text{ml}$ A) 2.5                      B) 25                      C) 250                      D) 2500	A
69	$0.75 \text{ litre} = \dots\dots\dots \text{dm}^3$ A) 0.75                      B) 7.5                      C) 75                      D) 750	A
70	$1500 \text{ cm}^3 = \dots\dots\dots \text{litres}$ A) 1500                      B) 150                      C) 15                      D) 1.5	D
71	$7.5 \text{ m}^3 = \dots\dots\dots \text{dm}^3$ A) 750                      B) 75                      C) 750 000                      D) 7500	D
72	$6500 \text{ dm}^3 = \dots\dots\dots \text{m}^3$ A) 6.5                      B) 65                      C) 650                      D) 6500 000	A
73	$300 \text{ mm}^3 = \dots\dots\dots \text{cm}^3$ A) 0.3                      B) 0.03                      C) 0.003                      D) 0.0003	A
74	$\dots\dots\dots$ is quantitative data. A) Address                      B) tallness                      C) Blood type                      D) Date of birth	B
75	The opposite data are quantitative except ..... A) address                      B) tallness                      C) weight                      D) age	A
76	The opposite data are quantitative except ..... A) weight                      B) age                      C) tallness                      D) Date of birth	D



77	The given data are descriptive except the ..... A) Age                      B) Address                      C) Blood type                      D) Date of birth	A
78	If the values of a frequency distribution lie between (20 ,60) , then the range of this distribution equals ..... A) 20                      B) 60                      C) 80                      D) 40	D
79	If the maximum mark of marks of a set of pupils marks was 57 and the minimum mark was 29 , then the range = ..... A) 86                      B) 28                      C) 68                      D) 82	B
80	If 78 is the greatest individual of a set and the range = 39 , then the smallest individual of this set = ..... A) 39                      B) 78                      C) 50                      D) 1800	A
81	The range of the values : 7 , 3 ,6 , 9 and 5 = ..... A) 3                      B) 4                      C) 5                      D) 6	D
82	If 25 is the smallest individual of a set and the range is 37 , then the greatest individual of this set = ..... A) 12                      B) 25                      C) 37                      D) 62	D
83	If the range of the marks distribution of mathematics equals 40 and the length of a set equal 5 , then the number of sets equals ..... A) 35                      B) 45                      C) 8                      D) 20	C
84	The difference between the greatest individual and the smallest individual of a set of values is called ..... A) Range                      B) Ratio                      C) Percent                      D) Proportion	A



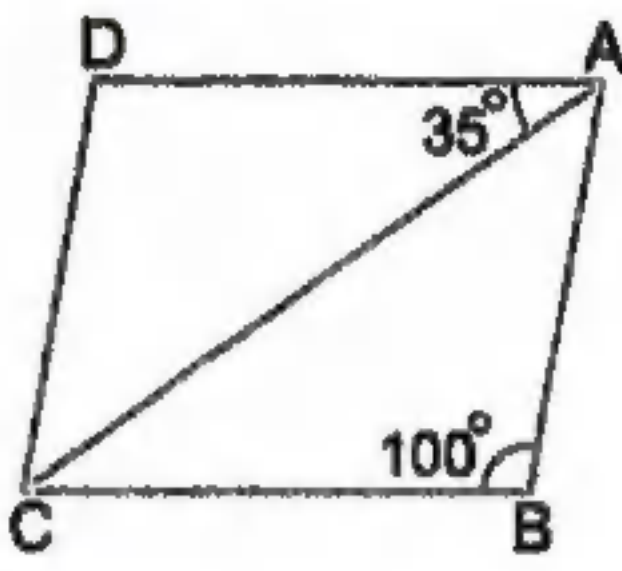
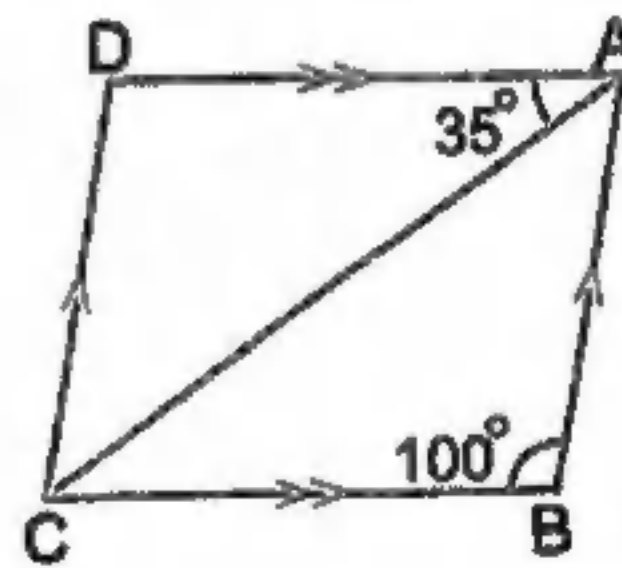
**Choose the correct answer :**

1. The range of the set of values : 7 , 3 , 6 , 9 and 5 is .....  
( 2 or 4 or **6** or 12 )
2.  $\frac{3}{4} = \dots\dots\dots$  (in decimal form) ( 0.2 or 0.5 or 0.25 or **0.75** )
3. An agricultural tractor ploughs 28 feddans in 4 hours , then the time which is needed to plough 42 feddans is ..... hours.  
( 4 or **6** or 7 or 8 )
4. In the opposite figure :  
ABCD is a parallelogram. , then  
 $m(\angle ACD) = \dots\dots\dots$   
  
( 35° or **45°** or 100° or 180° )
5. If  $\frac{2}{5} = \frac{x}{15}$  , then  $x = \dots\dots\dots$  ( 2 or 5 or **6** or 15 )
6. The following data are descriptive data except .....  
( favorite colour. or **age.** or birth place. or blood species. )
7. If one angle of a parallelogram is right , then it is called a .....  
**rectangle.** or square. or rhombus. or cube. )
8.  $\frac{24}{5} = \dots\dots\dots$  (  $4\frac{1}{5}$  or  $3\frac{2}{5}$  or  **$4\frac{4}{5}$**  or  $2\frac{4}{5}$  )
9. If the marks of 6 students in one exam are 29 , 33 , 57 , 40 , 36 and 49 , then the range of these marks = ..... ( 32 or 33 or **28** or 86 )
10. If  $\frac{4}{6} = \frac{12}{x}$  , then  $x + 2 = \dots\dots\dots$  ( 16 or 18 or **20** or 22 )
11.  $1\frac{3}{4} = \dots\dots\dots\%$  ( 25 or 50 or 75 or **175** )

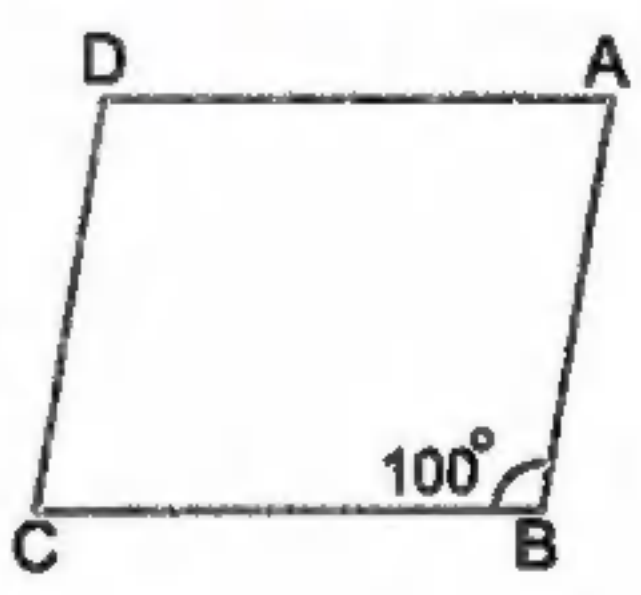


12.  $\frac{513}{614}$  .....  $\frac{432}{145}$  ( $>$  or  $<$  or  $=$  or  $\geq$ )
13. The range of the values 50 , 25 , 35 and 20 is .....  
( 10 or 20 or **30** )
14. If  $\frac{2}{3} = \frac{10}{x}$  , then  $x =$  ..... ( 6 or **15** or 20 )
15. The two diagonals are perpendicular in .....  
( rectangle or **rhombus** or triangle or parallelogram )
16. If the real length is 6 m. and the drawing length is 6 cm. , then the drawing scale is ..... ( 1 : 10 or 1 : 1 000 or **1 : 100** )
17. If  $a : b = 3 : 5$  and  $b : c = 5 : 7$  , then  $a : c =$  .....  
( 2 : 3 or 3 : 4 or **3 : 7** or 8 : 7 )
18.  $1 - 25 \% =$  ..... (  **$\frac{3}{4}$**  or  $\frac{1}{4}$  or  $\frac{1}{8}$  or  $\frac{3}{8}$  )
19. If the numbers 3 , 5 ,  $x$  and 20 are proportional , then  $x + 3 =$  .....  
( 6 or 12 or **15** or 21 )
20. If the drawing length is 6 cm. , and the real length is 6 metres , then the drawing scale = ..... ( 1 : 10 or **1 : 100** or 1 : 1000 or 1 : 1 )
21.  $\frac{3}{4}$  litre = ..... mL. ( 0.75 or 7.5 or **750** or 75 )
22. If 45% of  $x = 90$  , then  $x =$  ..... ( 20 or 100 or **200** or 300 )
23.  $\frac{1}{2}$  kg. .... 700 gm. (  **$<$**  or  $>$  or  $=$  or  $\geq$  )
24.  $\frac{3}{4} : \frac{5}{6} = 9 : \dots\dots\dots$  ( 6 or **10** or 11 or 12 )
25.  $\frac{7}{20} = \dots\dots\dots$  ( 7 % or 20 % or **35 %** or 42 % )
26. In the parallelogram , the sum of the measures of any two consecutive angles = .....° ( 45 or 90 or **180** or 360 )
27.  $4 \text{ m}^3 = \dots\dots\dots \text{ dm}^3$  ( 40 or 400 or **4 000** or 40 000 )
28.  $1.45 \text{ litres} + 0.5 \text{ dm}^3 = \dots\dots\dots \text{ litres.}$  ( 1.5 or **1.95** or 1.55 or 6.5 )



29. If the numbers 4 ,  $x$  , 12 , 18 are proportional , then  $x = \dots\dots\dots$   
 ( 6 or 8 or 10 or 12 )
30. The cuboid has six faces each of them is  $\dots\dots\dots$  .  
 ( a rectangle or a square or a rhombus or a cube )
31. If the real length of an insect is 0.3 mm. and its length in a picture 4.5 cm. ,  
 then the drawing scale =  $\dots\dots\dots$   
 ( 1 : 15 or 1 : 150 or 150 : 1 or 15 : 1 )
32. In the opposite figure :  
 ABCD is parallelogram  
 , then  $m(\angle ACD) = \dots\dots\dots$   
 (  $35^\circ$  or  $55^\circ$  or  $45^\circ$  or  $60^\circ$  )
- 
33. If  $\frac{4}{6} = \frac{8}{x}$  , then  $x + 2 = \dots\dots\dots$  ( 15 or 14 or 16 or 12 )
34. The ratio between 15 hours , one day =  $\dots\dots\dots$   
 ( 1 : 15 or 15 : 1 or 8 : 5 or 5 : 8 )
35. All of the following data are quantitative except  $\dots\dots\dots$   
 ( tallness or age or name or phone number )
36. In the opposite figure :  
 ABCD is parallelogram  
 , then  $m(\angle ADC) = \dots\dots\dots$   
 (  $35^\circ$  or  $45^\circ$  or  $100^\circ$  or  $135^\circ$  )
- 
37. If one of angles of the parallelogram is right , then the resulting figure is  
 a  $\dots\dots\dots$  ( rectangle or square or rhombus or cube )
38. If the volume of a cuboid =  $300 \text{ cm}^3$  , its base area =  $25 \text{ cm}^2$  , then its  
 height =  $\dots\dots\dots$  cm. ( 12 or 13 or 14 or 15 )
39. If one angle of the parallelogram is right and its sides are equal in length , then  
 it is called  $\dots\dots\dots$  ( square or rhombus or triangle or rectangle )



40. The diagonals are perpendicular and have the same length in the .....  
(square or rectangle or trapezium or parallelogram)
41. 12 % of 500 kg. = ..... kg. (40 or 50 or 60 or 70)
42.  $\frac{x}{5} = 60\%$  , then  $x + 3 =$  ..... (3 or 6 or 600 or 30)
43. If the drawing scale  $> 1$  , then this expresses .....  
(magnification or reduction or congruent or otherwise)
44. Parallelogram with equal diagonals in length is called .....  
(trapezium or rectangle or rhombus or square)
45. A car consumes 4 litres of fuel to cover distance 100 km. , then the rate of consumption is ..... litre per km. (25 or 0.4 or 0.04 or 400)
46. If the real length of a tree is 6 m. and its drawing , length is 3 cm. , then the drawing scale = ..... : .....  
(1 : 100 or 1 : 200 or 1 : 300 or 1 : 600)
47.  $0.3 \text{ m}^3 =$  .....  $\text{dm}^3$  (3 000 or 300 or 30 or 3)
48.  $\frac{4}{5} =$  ..... % (50 or 60 or 70 or 80)
49.  $\frac{1}{2} \text{ kg.} : 700 \text{ gm.} =$  ..... (2 : 7 or  $\frac{7}{8}$  or  $\frac{5}{7}$  or  $\frac{7}{9}$ )
50. In the opposite figure :  
ABCD is a parallelogram , then :  
 $m(\angle D) =$  ..... °  
(100 or 60 or 80 or 70)
- 
51. The ratio between the length of the side of the equilateral triangle and its perimeter = ..... : ..... (1 : 3 or 3 : 1 or 4 : 1 or 1 : 4)
52. Cuboid of dimensions (5 cm. , 2 cm. , 7 cm.) , its volume = .....  $\text{cm}^3$   
(24 or 48 or 65 or 70)